IN THE CLAIMS

1. (currently amended) A data processing system, comprising:

a data processing apparatus for receiving data from or delivering data to a storage device, the storage device being external to said data processing apparatus and including a memory, the data received from the external storage device being reproduced from the memory of the external storage device and the data delivered to the external storage device being recorded in the memory of the external storage device, the receiving or delivering ordinarily being carried out on condition that mutual authentication between said data processing apparatus and the external storage device is successful;~~,~~ ~~said data processing apparatus comprising:~~and

a memory stick ~~virtual storage device~~ loaded in the data processing apparatus and operable to execute mutual authentication;

the data processing apparatus including:

a mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and operable to execute mutual authentication so that when the external storage device does not include any structure operable to execute the mutual authentication or is not operable to enable such mutual authentication or the memory of the external storage device is devoid of ciphering function, the mutual authentication is alternatively carried out between said mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and said memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of

being carried out between said data processing apparatus and the external storage device, ~~;~~ ~~and~~

the data processing apparatus ~~a second structure~~ being operable to receive the data from the external storage device or to deliver the data to the external storage device when the mutual authentication between said mutual authentication unit ~~first structure~~ and said memory stick ~~virtual storage device~~ is successful.

2. (currently amended) The data processing system ~~apparatus~~ according to Claim 1, ~~further comprising a structure~~ wherein said mutual authentication unit is operable to first execute the mutual authentication with the external storage device by initially checking whether the external storage device includes the structure operable to execute the mutual authentication.

3. (currently amended) The data processing system ~~apparatus~~ according to Claim 1, wherein

a further key is provided for authenticating distribution of an enabling key block, the further key having been previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key structure extends from a specific one of the roots to a particular one of the leaves of said key tree structure, the leaves of the tree structure being respectively associated with a plurality of data processing apparatuses,

the enciphering data including upper-rank keys in said tree hierarchy which are enciphered by lower-rank keys; and

said mutual authentication unit ~~first structure~~ and said memory stick ~~virtual storage device~~ execute the mutual authentication ~~between said first structure and said virtual storage device~~ by applying said enabling key block distribution authenticating key and another authenticating key previously stored in said memory stick~~virtual storage device~~.

4. (currently amended) The data processing system ~~apparatus~~ according to Claim 3, wherein

said mutual authentication unit ~~first structure~~ decodes said enabling key block only when said data processing apparatus is properly licensed and is unable to decode the enabling key block when said data processing apparatus is devoid of a proper license; and

said data processing apparatus devoid of the proper license being prevented from illegally implementing the mutual authentication between said mutual authentication unit ~~first structure~~ and said memory stick ~~virtual storage device~~ by revoking said improper data processing apparatus.

5. (currently amended) The data processing system ~~apparatus~~ according to Claim 3, further comprising means for subjecting said enabling key block distribution authenticating key to a version controlling process by executing a process for renewing individual versions.

6. (currently amended) The data processing system ~~apparatus~~ according to Claim 1, wherein

a key tree structure is provided comprising a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given one of the paths extends from a specific one of the

roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree, and said data processing apparatus further comprises:

means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of said data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus.

7. (currently amended) The data processing system ~~apparatus~~ according to Claim 1, wherein

a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths that extend from the roots to the leaves of said key tree structure, a plurality of data processing apparatuses respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves, and

a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the key tree structure.

8. (currently amended) A method for transferring data between a data processing apparatus and a storage device, the storage device being external to the data processing apparatus and including a memory, the data transferred to the external storage device being recorded in the memory of the external storage device and the data transferred from the external storage device being reproduced from the memory of the external storage device, the receiving or delivering ordinarily being

carried out on condition that mutual authentication between the data processing apparatus and the external storage device is successful, said method comprising:

providing a mutual authentication unit ~~first structure~~ within the data processing apparatus, the mutual authentication unit ~~first structure~~ being operable to execute mutual authentication;

loading a memory stick ~~virtual storage device~~ in the data processing apparatus, the memory stick ~~virtual storage device~~ being operable to execute mutual authentication;

executing mutual authentication between the mutual authentication unit ~~first structure~~ provided within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus when the external storage device does not include any function that executes the mutual authentication or does not include any function that enables such mutual authentication or the memory of the external storage device is devoid of ciphering function, the mutual authentication thereby being carried out between the mutual authentication unit ~~first structure~~ provided within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of being carried out between the data processing apparatus and the external storage device; and

transferring the data from the external storage device to the data processing apparatus or from the data processing apparatus to the external storage device on condition that the mutual authentication between the mutual authentication unit ~~first structure~~ and the memory stick ~~virtual storage device~~ is successful.

9. (previously presented) The method according to Claim 8, further comprising:

identifying, prior to said executing step, whether the external storage device is capable of executing said mutual authentication; and

alternatively executing a mutual authentication between the data processing apparatus and the external storage device when execution of said mutual authentication between them is possible.

10. (currently amended) The method according to Claim 8, wherein

the data processing apparatus includes an enabling key block distribution authenticating key previously enciphered by an enabling key block, the enabling key block including data for enciphering renewal keys that are located on a path of a key tree structure having a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, the paths extending from the roots to the leaves of said key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves, the enciphering key also including data for enciphering upper-rank keys via lower-rank keys, and

said mutual authentication process between the mutual authentication unit ~~first structure~~ and the memory stick ~~virtual storage device~~ is executed by applying the enabling key block distribution authenticating key and the other authenticating key previously stored in the memory stick~~virtual storage device~~.

11. (currently amended) A license system ~~disposed within~~ , comprising:

a data processing apparatus for providing license control of the transfer of data between the data processing apparatus and a storage device, the storage device being external to the data processing apparatus and including a

memory, the data transferred to the external storage device being recorded in the memory of the external storage device and the data transferred from the external storage device being reproduced from the memory of the external storage device;~~, said license system comprising:~~

means for providing an enabling key block distribution authenticating key, the enabling key block distribution authenticating key being previously enciphered by an enabling key block containing data for enciphering renewal keys located on paths of a key tree structure, the key structure having a plurality of keys associated with various roots of the key tree structure, nodes of the key tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being associated with the leaves, the enabling key block also comprising data for enciphering upper-rank keys via lower-rank keys;

a mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and operable to execute mutual authentication;

a memory stick ~~virtual storage device~~ loaded in the data processing apparatus and operable to carry out mutual authentication;

the data processing apparatus including means for receiving data from or delivering data to the external storage device on condition that mutual authentication is successfully effectuated between said mutual authentication unit ~~first structure~~ and the external storage device, and when the external storage device does not include any means for carrying out for enabling the mutual authentication or does not include any means for enabling such mutual

authentication or the memory of the external storage device is devoid of ciphering function, for receiving data from or delivering data to the external storage device on condition that mutual authentication is successfully effectuated between said mutual authentication unit ~~first structure~~ and said memory stick~~virtual storage device~~, the mutual authentication thereby being carried out between the mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of being carried out between said data processing apparatus and the external storage device; and

means for enabling the data processing apparatus to decode the enabling key block that provides the enabling key block distribution authenticating key among the plurality of data processing apparatuses when the data processing apparatus is properly licensed, and for preventing the data processing apparatus from illegally decoding the enabling key block when the data processing apparatus is devoid of the proper license, thereby preventing the data processing apparatus devoid of the proper license from illegally effectuating authentication with said memory stick ~~virtual storage device~~ and illegally utilizing contents data.

12. (currently amended) A computer-readable medium provided with a computer program for executing a method of transferring data between a data processing apparatus and a storage device, the storage device being external to the data processing apparatus and including a memory, the data transferred to the external storage device being recorded in the memory of the external storage device and the data transferred from the external storage device being reproduced from the memory of the external storage device, the receiving or

delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the external storage device is successful, said method comprising:

executing mutual authentication between a mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and a memory stick ~~virtual storage device~~ loaded in the data processing apparatus when the external storage device does not include any function that executes mutual authentication or does not include any function that enables such mutual authentication or the memory of the external storage device is devoid of a ciphering function, the mutual authentication thereby being carried out between the mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of being carried out between the data processing apparatus and the external storage device; and

transferring the data from the external storage device to the data processing apparatus or from the data processing apparatus to the external storage device on condition that the mutual authentication between the mutual authentication unit ~~first structure~~ and the memory stick ~~virtual storage device~~ is successful.

13. (currently amended) A data processing system, comprising:

a data processing apparatus for delivering data to or receiving data from a storage device, the storage device being external to said data processing apparatus and including a memory, the data received from the external storage device being reproduced from the memory of the external storage device and the data delivered to the external storage device being recorded in the memory of the

external storage device, the receiving or delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the external storage device is successful, said data processing apparatus comprising:

a controller disposed within the data processing apparatus and operable to carry out mutual authentication; and

a ~~virtual~~ memory stick loaded in the data processing apparatus and operable to carry out mutual authentication;

wherein the delivering of data to or the receiving of data from the external storage device is conditioned upon successful mutual authentication between said controller and said ~~virtual~~ memory stick when the external storage device does not support such mutual authentication or does not enable such mutual authentication or the memory of the external storage device is devoid of ciphering function, the mutual authentication thereby being carried out between said controller disposed within the data processing apparatus and said ~~virtual~~ memory stick loaded in the data processing apparatus instead of being carried out between said data processing apparatus and the external storage device.

14. (currently amended) The data processing system ~~apparatus~~ of claim 13, wherein prior to performing the mutual authentication between said controller and said ~~virtual~~ memory stick, said controller determines whether the external storage device includes the mutual authentication function, and if so, the recording of data to or reproducing of data from the external storage device is alternatively conditioned upon successful mutual authentication between the controller and the external storage device.

15. (currently amended) The data processing system ~~apparatus~~ of claim 13, wherein the mutual authentication between said controller and said memory stick ~~virtual storage~~ is carried out by applying an authenticating key stored in said memory stick ~~virtual storage~~ and an enabling key block distribution authenticating key, wherein the enabling key block distribution authenticating key is previously enciphered by an enabling key block comprising enciphering data for enciphering renewal keys, the renewal keys being located along paths of a hierarchical key tree structure in which a plurality of keys are associated with various roots of the key structure, nodes of the key structure, and leaves of the key tree structure, whereby a given one of the plurality of paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, said data processing apparatus being associated with one of the leaves of the key tree structure, and the enciphering data further including upper-rank keys to be enciphered by lower-rank keys.

16. (currently amended) The data processing system ~~apparatus~~ according to claim 15, wherein said data processing apparatus is properly licensed if said data processing apparatus is enabled to decode the enabling key block, and said data processing apparatus is devoid of proper licensing if said data processing apparatus is unable to decode the enabling key block.

17. (currently amended) The data processing system ~~apparatus~~ according to claim 15, wherein the enciphered enabling key block distribution authenticating key is subject to a version control process or to a process for renewing individual versions.

18. (currently amended) The data processing system ~~apparatus~~ according to claim 13, further comprising a memory for storing an enciphered leaf key, the enciphered leaf key being produced by enciphering a leaf key with a storage key that is

associated with the data processing apparatus, the leaf key being part of a hierarchical key tree structure having a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the key tree structure, whereby a given one of the plurality of paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, and wherein the leaf key is associated with the data processing apparatus.

19. (currently amended) The data processing system ~~apparatus~~ according to claim 13, further comprising a memory for storing a device key block comprising a plurality of ciphered keys that include mutually different individually enciphered node keys of a hierarchical key tree structure having a plurality of keys respectively associated with various roots of the key structure, nodes of the key structure, and leaves of the key tree structure, and having a plurality of paths whereby a given one of the paths extends from a given one of the roots to a particular one of the leaves of the key tree structure, and wherein one of the leaves is associated with the data processing apparatus.

20. (currently amended) In a data processing system, ~~apparatus for~~ a method of delivering data from a data processing apparatus to a storage device or receiving data at the data processing apparatus from ~~a~~ the storage device, the storage device including a memory and being external to the device for delivering or receiving, the data delivered to the external storage device being recorded in the memory of the external storage device and the data received from the external storage device being reproduced from the memory of the external storage device, the receiving or delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the external storage device is successful, ~~a~~ the method comprising:

(a) providing a mutual authentication unit ~~first structure~~ within the data processing apparatus, the mutual authentication unit ~~first structure~~ being operable to execute mutual authentication;

(b) loading a memory stick ~~virtual storage device~~ in the data processing apparatus, the memory stick ~~virtual storage device~~ being operable to execute mutual authentication;

(c) executing mutual authentication between the mutual authentication unit ~~first structure~~ provided within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus when the external storage device does not include any function that executes mutual authentication or does not include any function that enables such mutual or the memory of the external storage device is devoid of ciphering function, the mutual authentication thereby being carried out between the mutual authentication unit ~~first structure~~ provided within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of being carried out between said device for delivering and receiving data and the external storage device, and

(d) if the mutual authentication between the mutual authentication unit ~~first structure~~ and the memory stick ~~virtual storage device~~ is successful, executing the delivering of the data to or the receiving of the data from the external storage device.

21. (previously presented) The method of claim 20, further comprising:

prior to step (c), identifying whether the external storage device includes the mutual authentication function;

if the external storage device includes the mutual authentication function, alternatively executing the mutual authentication function with the external storage device in place of step (c); and

if the mutual authentication with external storage device is successful, executing the delivering of the data to or the receiving of the data from the external storage device in place of step (d).

22. (currently amended) The method of claim 20, wherein the mutual authentication with the memory stick ~~virtual storage~~ is carried out by applying an authenticating key stored in the memory stick ~~virtual storage~~ together with an enabling key block distribution authenticating key, the enabling key block distribution authenticating key being previously enciphered by an enabling key block that includes enciphering data for enciphering renewal keys located along paths of a hierarchical key tree structure having a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the key tree structure, whereby a given one of the plurality of paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the device being associated with one of the leaves of the key tree structure, and the enciphering data including upper-rank keys that are to be enciphered by lower-rank keys.

23. (currently amended) A license system, comprising: ~~disposed within~~

a data processing apparatus for providing license control of the transfer of data between the data processing apparatus and a storage device, the storage device being external to the data processing apparatus and including a memory, the data transferred to the external storage device being recorded in the memory of the external storage device

and the data transferred from the external storage device being reproduced from the memory of the external storage device;~~, said license system comprising:~~

means for providing an enabling key block distribution authenticating key enciphered by an enabling key block, the enabling key block including enciphering data for enciphering renewal keys that are located along paths of a hierarchical key tree structure having a plurality of keys respectively associated with roots of the key structure, nodes of the key structure, and leaves of the key tree structure, whereby a given one of the plurality of paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, at least one of the leaves of the key tree structure being associated with the data processing apparatus, and said enciphering data including upper-rank keys that are to be enciphered by lower-rank keys;

a mutual authentication unit ~~first structure~~ provided within the data processing apparatus and operable to execute mutual authentication;

a memory stick ~~virtual storage device~~ loaded in the data processing apparatus and operable to carry out mutual authentication;

the data processing apparatus including:

means for enabling the execution of mutual authentication between the mutual authentication unit ~~first structure~~ provided within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus when the external storage device does not include any capability of executing the mutual authentication or does not include any capability of enabling such mutual authentication or the memory of the external

storage device is devoid of ciphering function, the mutual authentication thereby being carried out between the mutual authentication unit ~~first structure~~ provided within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of being carried out between the data processing apparatus and the external storage device~~,~~ and

means for enabling the transfer of data from the external storage device to the data processing apparatus or from the data processing apparatus to the external storage device on condition that the mutual authentication between the mutual authentication unit ~~first structure~~ and the memory stick ~~virtual storage device~~ is executed successfully; ~~and~~

the data processing apparatus being properly licensed if enabled to decode the enabling key block and being devoid of proper licensing if unable to decode the enabling key block.

24. (currently amended) A computer-readable medium for storing computer-executable software code for enabling a data processing apparatus to carry out a method of delivering data to or the receiving data from a storage device, the storage device being external to the data processing apparatus and including a memory, the data delivered to the external storage device being recorded in the memory of the external storage device and the data received from the external storage device being reproduced from the memory of the external storage device, the receiving or delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the external storage device is successful, said method comprising:

executing mutual authentication between a mutual authentication unit ~~first structure~~ disposed within the

data processing apparatus and a memory stick ~~virtual storage device~~ loaded in the data processing apparatus when the external storage device does not include any capability of executing the mutual authentication or does not include any capability of enabling such mutual authentication or the memory of the external storage device is devoid of ciphering function, the mutual authentication thereby being carried out between the mutual authentication unit ~~first structure~~ disposed within the data processing apparatus and the memory stick ~~virtual storage device~~ loaded in the data processing apparatus instead of being carried out between the data processing apparatus and the external storage device; and

delivering the data to or receiving the data from the external storage device if the mutual authentication between the mutual authentication unit ~~first structure~~ and the memory stick ~~virtual storage device~~ is successful.